

IN THE CLAIMS

1-10. (canceled)

11. (currently amended) A membrane ~~comprising~~ consisting of a composition including

(a) 10 to 90 wt-% of at least one polyurethane elastomer comprising at least one hard segment and at least one soft segment, and

(b) 90 to 10 wt-% of a solid,

wherein said solid is incorporated in said at least one polyurethane elastomer, ~~and the melting point of the hard segment is more than 100°C~~ and said solid is an inorganic Li-ion-conducting solid.

12. (previously presented) A membrane according to claim 11, wherein the at least one polyurethane elastomer is a thermoplastic polyurethane elastomer.

13. (previously presented) Membrane according to claim 11, wherein the solid has a primary particle size of 0.005 to 30 microns.

14. (currently amended) Membrane according to claim 11, wherein the polyurethane elastomer has at least one of the following characteristics:

(a) a melting point of the hard segment of more than 100°C, and

(b) the soft segment comprises ether linkages, ester linkages or carbonate linkages or a combination of two or more thereof.

15-30. (canceled)

31. (previously presented) Membrane according to claim 11, wherein the polyurethane elastomer contains at least two thermoplastic, nonelastic polymer blocks having a melting temperature above 100 °C and an average molecular weight of 240 to 10,000 (hard segment) and between said thermoplastic, nonelastomeric polymer blocks an elastomeric block having a glass transition temperature below 10 °C and an average molecular weight of about 240 to 100,000.
32. (new) Membrane according to claim 11, wherein the Li-ion-conducting solid is selected from the group consisting of lithium borates, lithium aluminates, lithium aluminosilicates, lithium zeolites, lithium carbides, lithium oxides, lithium mixed oxides, Li_2NH , LiNH_2 , lithium phosphates, Li_2CO_3 , lithium silicates in the form of ladder-type, ino-, phyllo- and tectosilicates, lithium sulfates and mixtures thereof.
33. (new) Membrane according to claim 32, wherein
 - the lithium borates are selected from the group consisting of $\text{Li}_4\text{B}_6\text{O}_{11} \cdot x\text{H}_2\text{O}$, $\text{Li}_3(\text{BO}_2)_3$, $\text{Li}_2\text{B}_4\text{O}_7 \cdot x\text{H}_2\text{O}$, LiBO_2 , where x can be a number from 0 to 20;
 - the lithium aluminates are selected from the group consisting of $\text{Li}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot \text{H}_2\text{O}$ and $\text{Li}_2\text{Al}_2\text{O}_4$ and LiAlO_2 ;
 - the lithium aluminosilicates are selected from the group consisting of lithium-containing zeolites, feldspars, feldspathoids, phyllo- and ino-silicates, $\text{LiAlSi}_2\text{O}_6$ (spodumene), $\text{LiAlSi}_4\text{O}_{10}$ (petullite), LiAlSiO_4 (eucryptite), and micas;
 - the lithium zeolites have a fiber-like, sheet-like or cube-like form and have

the formula $\text{Li}_{2/z}\text{O} \cdot \text{Al}_2\text{O}_3 \cdot x\text{SiO}_2 \cdot y\text{H}_2\text{O}$ where z corresponds to the valence, x is from 1.8 to about 12 and y is from 0 to about 8;

the lithium carbides are selected from the group consisting of Li_2C_2 , Li_4C , Li_3N ;

the lithium oxides and lithium mixed oxides are selected from the group consisting of LiAlO_2 , Li_2MnO_3 , Li_2O , Li_2O_2 , Li_2MnO_4 and Li_2TiO_3 ;

the lithium phosphates are selected from the group consisting of Li_3PO_4 , LiPO_3 , LiAlFPO_4 , $\text{LiAl}(\text{OH})\text{PO}_4$, LiFePO_4 and LiMnPO_4 ;

the lithium silicates are selected from the group consisting of Li_2SiO_3 , Li_2SiO_4 , $\text{Li}_2\text{S-SiS}_2$ and mechanically milled products from Li_2S , SiS_2 and Li_4SiO_2 ;
and

the lithium sulfates are selected from the group consisting of Li_2SO_4 , LiHSO_4 , and LiKSO_4 .